

IN THE CLAIMS:

Please amend the claims as follows:

1. (original) A material testing method comprising the steps of:

attaching a weight to an object to be measured to form a mass-spring system in which the object to be measured serves as a spring element;

applying vibration to the mass-spring system;

measuring an inertial force acting on the weight and an displacement of the weight; and

evaluating mechanical properties of the object to be measured based on the inertial force and displacement.

2. (original) The method according to claim 1, wherein a light wave interferometer, which launches measurement light at a reflecting part provided on the weight and measures the state of the reflected light from the reflecting part, is used to determine the displacement and acceleration of the weight from the state of the reflected light measured, and the inertial force of the weight is calculated from the acceleration of the weight determined.

3. (original) The method according to claim 1, wherein the weight is supported by a pneumatic linear bearing.

4. (original) The method according to claim 2, wherein the weight is supported by a pneumatic linear bearing.

5. (currently amended) The method according to claim 1, ~~any one of claims 1 to 4~~ wherein an actuator is coupled to the object to be measured, and vibration is applied to the mass-spring system by the actuator.

6. (New) The method according to claim 2, wherein an actuator is coupled to the object to be measured, and vibration is applied to the mass-spring system by the actuator.

7. (New) The method according to claim 3, wherein an actuator is coupled to the object to be measured, and vibration is applied to the mass-spring system by the actuator.

8. (New) The method according to claim 4, wherein an actuator is coupled to the object to be measured, and vibration is applied to the mass-spring system by the actuator.